# ENVIRONMENTAL ASSESSMENT

# REHABILITATION OF BRAWNER FARM HOUSE

# MANASSAS NATIONAL BATTLEFIELD PARK VIRGINIA

**United States Department of Interior National Park Service** 

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# **ENVIRONMENTAL ASSESSMENT Rehabilitation of Brawner Farm House**

#### I. PURPOSE AND NEED

This assessment evaluates three alternatives for the rehabilitation of the historic Brawner Farm house in Manassas National Battlefield Park. Modifications include partial restoration of the building to its circa 1904 form to restore the building's historic appearance and stabilization and rehabilitation of the structure to meet the requirements for public use and accessibility. The proposed modifications also provide for installing security and fire alarm systems to enhance resource protection, installing lighting, ventilation, and electric heating as needed for visitation, and altering entrances and door openings to achieve accessibility for disabled visitors. These modifications will improve the condition of this historic resource and allow for public access to the interior of the building for interpretive programs and exhibits, which will enhance the visitor experience in the park. In addition to the alterations to the house at Brawner Farm, the proposed work includes construction of an entrance road, parking area, and accessible trail.

#### II. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

# A. Background Data

Manassas National Battlefield Park, a unit of the National Park Service, is located in Prince William County, about five miles north of the city of Manassas, Virginia (Figure 1). The park was established in 1940 to preserve the sites of the First and Second Battles of Manassas, two battles of the American Civil War. This project study area is located in the northwestern quadrant of the park near the park headquarters at Stuart's Hill. The suggested changes to this site will result in the rehabilitation of the historic Brawner Farm house to allow for public access to the site and for using the interior of the building as a contact station for Second Manassas.

### **B.** Proposed Action

The proposed work on the Brawner Farm house consists of essential rehabilitation work necessary for public accessibility and enjoyment of the historic Brawner Farm as the introductory tour stop for the Second Manassas Battlefield. The proposal includes construction of an access road, paved parking lot, and accessible trail to provide for improved public access to the historic property. The access road will extend eastward from Pageland Lane for approximately one-quarter mile to a loop parking lot located about 800 feet west of the house. A hard-surfaced handicap accessible trail will provide pedestrian access from the parking lot to the house and grounds.

The proposal includes the stabilization and rehabilitation of the existing farmhouse for adaptive use as an interpretive facility, with exhibits orienting visitors to the site and addressing the themes and stories associated with the Second Battle of Manassas and with the engagement at the Brawner Farm in particular. The rehabilitated house will also serve as the starting point for ranger-guided walking tours of the battle site. Stabilization work will include repair and reconstruction of the fieldstone foundation and repair of the floor, roof, exterior walls, doors and windows, interior walls and plaster surfaces to allow for visitor access to the first floor and for park use of the second floor for limited storage. Rehabilitation for public use will include construction of a handicap accessible ramp on the west elevation of the house to meet the standards of the Americans with Disabilities Act Accessibility Guidelines (ADAAG). The rehabilitation work includes the installation of electrical, fire suppression, and security and fire alarm systems. In addition lighting will be installed to allow for the interior to be used for interpretive exhibits. Ventilation and electric heat will also be installed to allow for visitor use with minimal impact to the building.

The rehabilitation work includes partial restoration of the building to its circa 1904 appearance. Original fabric will be repaired and retained as far as possible. Missing or badly deteriorated fabric will be replaced in kind as necessary. Exterior surfaces will be painted in accordance with a historic paint finishes report. The existing metal roof will be removed and replaced with a wood shingle roof patterned after historic shingle samples located in the attic of the house.

This project will enable the park to enhance interpretation of the Second Battle of Manassas by improving public access to the site of the battle's opening engagement and developing the property as the first stop on a comprehensive tour of the battlefield. The project will also result in critical stabilization work needed to maintain the existing house at Brawner Farm. This building is listed on the National Register of Historic Places as contributing to the significance of the Manassas Battlefield Historic District.

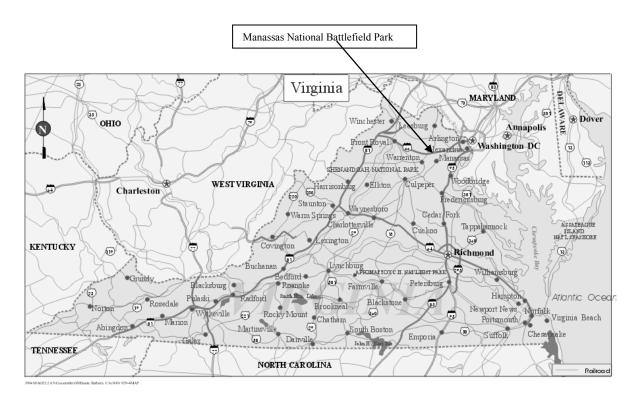


Figure 1. Location of Manassas National Battlefield Park.

#### C. Alternatives

# Alternative 1: No Action – Continue Present Management of Brawner Farm

This alternative would continue the present management of the Brawner Farm, without providing for improved public access and interpretation of the site. Although the house at Brawner Farm suffers from numerous structural deficiencies and is in poor condition, the park would undertake minimal work to maintain the house as a site marker, and no public access would be permitted into the building. Visitor use would continue to be concentrated on the interpretive trails to the east of the house. Public access to the site would remain available via the gated farm driveway on U.S. Route 29, and limited parking would be available in an informal, unmarked pull-off area along the shoulder of the highway at the driveway entrance. Vehicular access to the farm, meanwhile, would be restricted to park employees and agricultural lessees for purposes of managing the site.

Although this alternative would retain the present farmhouse as a feature of the historic landscape, only minimal repairs would be undertaken only as necessary to preserve the building. This alternative would not provide for restoration of the exterior of the house or for the rehabilitation of its interior spaces for public use. Despite the availability of

interpretive trails under this alternative, interpretive use of the property would continue to be limited due to access problems associated with the unsafe and inappropriate parking area located adjacent to U.S. Route 29. No additional interpretive development would occur on the property under this alternative. Ranger-guided walking tours would continue to be provided on a seasonal basis, but these would be organized through visitor contact at the Visitor Center on Henry Hill as staffing levels permit. No additional staffing would be anticipated for this alternative.

# Alternative 2: Remove Existing House and Construct Exhibit Shelter

Under this alternative the existing house at Brawner Farm would be documented and removed. The current house, which is now in poor condition, was not present on the site at the time of the Civil War. To mark the location of the original building, the foundation of the Civil War period dwelling would be exposed and stabilized. To enhance visitor access to the site, the park would construct an entrance road off of Pageland Lane in the western part of the farm. The road would terminate at a parking lot to be constructed west of the house and yard, with an accessible trail extending from the parking lot to the yard area. An exhibit shelter would be constructed west of the yard area to provide for visitor orientation to the site. Wayside exhibits on the site would interpret the role of the farmstead in the battle and the impact of the fighting on the Brawner family. Visitors would continue to access the existing interpretive trails located east of the house site.

This alternative would provide for better public access to the site of the Brawner House as well as for improved site orientation through the construction of an exhibit shelter. Due to the improved access to the site, visitation to the farmstead and use of the existing interpretive trails would likely increase. Interpretive development would be limited to the addition of the exhibit shelter west of the house and waysides in the vicinity of the house. No additional staffing would be required for this alternative.

This alternative, however, would eliminate the existing farmhouse as a feature of the battlefield landscape. Although portions of the house are believed to predate the Civil War, archeological evidence indicates that the present house was not standing on the site during the time of the war. Removal of the building would permit the park to interpret the foundation remains of the original Brawner House, portions of which lie beneath the existing house. Such an alternative, however, would result in the complete and irrevocable loss of a historic building that is identified in the National Register of Historic Places as contributing to the significance of Manassas National Battlefield Park and the Manassas Battlefield Historic District. Razing the house would eliminate any opportunity for adaptive use of the building for interpretation and would also rule out the option of retaining the structure as a visible landmark on the battlefield, marking the site of the wartime building.

This alternative would provide for the rehabilitation of the existing house at Brawner Farm and the development of the site into a major interpretive site that would serve as the first stop in a comprehensive tour of the Second Manassas Battlefield. Rehabilitating the house would allow the public to access the interior to view interpretive exhibits to orient them to the battle site and to promote an understanding of the battle story. Exhibits would address the role of the farm in the Second Battle of Manassas, with an emphasis on the opening engagement of August 28, 1862, and the impact of the battle on civilians as represented by the John Brawner family. Although evidence indicates that the existing house was not present on the landscape at the time of the Civil War, the house partially occupies the footprint of the original building and serves as a site marker for the earlier building. The interior of the house would offer ample space for exhibits detailing not only the battle story but also highlighting the archeological and architectural investigations into the history of the house, which is listed in the National Register of Historic Places as contributing to the significance of the park and its associated historic district.

Under this alternative both the exterior and interior would undergo rehabilitation to allow for public access to the interior, and the exterior would also undergo partial restoration to return its appearance to the 1904-05 period, when the existing house took its present form. Such restoration would include partial reconstruction of the fieldstone foundation, restoration of the wood shingle roof, and restoration of the original paint scheme to the wood siding and trim, as indicated by a historic paint finishes report. Rehabilitation work for public access would include construction of a handicap accessible ramp on the house's west elevation as needed to meet ADAAG standards and the addition of a wood platform and steps on the east elevation entrance, where only limited traces of a porch are visible on the building. The work would also include repair of deteriorated elements of the building, including joists, framing, floors, and plaster walls and ceilings, as needed. Alterations to the house may include upgrading the floor system to withstand the additional load due to public access needs. Under this alternative public access would be restricted to the first floor, with the second floor utilized for limited park storage. In addition security, fire alarm, and fire suppression systems would be installed to enhance resource protection. ventilation, and electric heating would be installed to support the use of the building for interpretation.

To provide for improved access to the site, the park would construct an entrance road on Pageland Lane extending eastward into the farm. The road would end in a loop parking lot situated on a ridge west of the farmstead, where visitors would have a vista of the farm and battle site. Wayside exhibits near the parking lot would orient visitors to the site and encourage them to walk to the house and grounds. An accessible trail would run from the parking area to the house, approximately 800 feet away. Additional waysides on the grounds of the house would identify historic and archeological resources associated with the wartime Brawner Farm and direct visitors to the starting point of a self-guided walking tour of the Brawner Farm battle site. The walking tour would follow existing interpretive trails located

immediately to the east of the farmstead.

This alternative would offer the public improved access to the Brawner Farm and enhanced opportunities for orientation to the site of the opening engagement of the Second Battle of Manassas. Developing this site as the first stop on the Second Manassas tour will also promote a greater public understanding and appreciation of the story of Second Manassas. This alternative would retain the existing house, which is recognized in the National Register of Historic Places as contributing to the significance of the park and its historic district. The proposed treatment of rehabilitation would correct structural deficiencies that currently threaten the building and permit its adaptive use as an interpretive facility for the display of exhibits orienting visitors to the historic Brawner Farm and relating the role of the farm in the battle. Retaining the building would also continue its function as a site marker on the battlefield landscape, representing the location of the original Brawner House and aiding in visitor orientation to the site. Under this alternative the house would be opened to the public as staffing permits, with park volunteers augmenting the efforts of park staff. No additional staffing is proposed for this alternative.

#### III. DESCRIPTION OF THE EXISTING ENVIRONMENT

# **A.** Nonliving Components

#### Climate

Summers are warm and humid; winters are relatively mild. Generally pleasant weather prevails in spring and autumn. Mean annual temperature is about 55 degrees (F) and ranges from 42 to 65. The coldest period, when minimum temperatures average 21 degrees, occurs in late January. The warmest period, when mean maximum temperature may reach 88 degrees, occurs in the last half of July. Annual precipitation has ranged from about 25 inches to more than 55 inches. Rainfalls of over 10 inches in a 24-hour period have been recorded during the passage of tropical storms. The seasonal snowfall is nearly 24 inches but varies greatly from season to season. Snowfalls of 4 inches or more occur only twice each winter on the average. Accumulations of over 20 inches from a single storm are extremely rare. Prevailing winds are from the south except during the winter months when they are from the northwest with the highest average wind speed occurring in March.

#### Land

**Soils** - The project area is underlain by coarse-grained Triassic diabase of metasiltstone, both of which weather to circumneutral, clay-rich soils. These soils tend to feature a hardpan B horizon with considerable plasticity and slow drainage. As a result, soils tend to be somewhat waterlogged during wet periods and very hard and impermeable when dry. According to the Soil Survey of Prince William County, Virginia, the soil types for the entrance road and trail leading to the Brawner house consist of Arcola, Reaville,

Panorama, Manassas, Albano, Haymarket, Sycoline-Kelly, and Jackland-Haymarket soil types. Soils of the Arcola and Panorama series are moderately deep and well drained. Reaville, Albano and Sycoline-Kelly soils are moderately deep and somewhat poorly drained, with streams in the project area occurring within the Albano soils. Manassas and Haymarket soils are very deep and well drained. Soils of the Jackland series are very deep, moderately well drained and somewhat poorly drained with very slow permeability.

**Geology** - The study area is underlain by sedimentary, metasedimentary, and igneous rocks of Triassic and Jurassic age. Siltstone of the Ball's Bluff Formation is the most extensive bedrock type in the area. This material is a red to purplish-brown, iron-rich, micaceous siltstone with thin to medium bedding that tends to produce platy to slab-like fragments when weathered. Calcium is abundant in concretions, veins, and cement. Minor interbeds of red silty shale and arkosic sandstone are also present. This formation constitutes the parent material of almost all soils in the eastern half of the study area (Leavy *et al* 1983, Lee 1977).

The western half of the Park contains substantial areas underlain by intrusive diabase, which occurs in irregular dikes, stocks, and sills. This diabase is a dense, medium-grained, dark-gray to black mafic, igneous rock composed primarily of feldspar and pyroxene (Lee 1979). This bedrock is well expressed in a narrow dike that originates near Wellington to the south of MNBP and extends northward through the Park, passing west of Groveton and ending just SE of Sudley. Other diabase intrusions are located in the vicinity of Stuarts Hill, south of Battery Heights, and on the ridge east of Brawner Farm (Leavy *et al.* 1983). The soil survey for Prince William County (Elder 1989) indicates that soils derived from diabase are also located in the vicinity of Bald Hill. Thick, residual soils cover most diabase intrusions but often contain spheroidally weathered boulders at the surface.

c. Physiography and Hydrology - Manassas National Battlefield Park (MNBP) is located in the Piedmont physiographic province (Fennemann 1938), approximately 4 km (2.5 mi) northwest of Manassas City, Virginia and 42 km (26 mi) west of Washington, D.C. (Fig. 1). The elevation of the project area ranges from 300 to 310 feet. Most of the Park is in eastern Prince William County, Virginia, with a very small portion extending into Fairfax County. The park is situated in the Culpeper Basin, a large Mesozoic trough that stretches across the central Piedmont from Culpeper County north through Fauquier, Prince William, and Loudoun Counties into Maryland (Lee 1979). The Culpeper Basin is a distinctive regional landscape with relatively low relief and gently rolling to nearly level topography. Manassas National

Battlefield Park is very representative of the region, with broad, low ridges, extensive upland "flats" and shallow, sluggish drainageways.

Streams of the park are part of the Occoquan River watershed. Bull Run, one of the largest secondary streams of the region, borders much of the eastern edge of the Park. The watershed of Youngs Branch, a major Bull Run tributary, drains most of the study area. Well-developed floodplain landforms, including depositional bars, levees, and backswamps, occur only along Bull Run. Floodplains along Young's Branch and several of its larger tributaries are much smaller and lack the microtopographic diversity of large-stream and river floodplains. Headwater drainages throughout the study area are characterized by very small, sometimes braided channels with little alluvial deposition, and are flanked by flats with ephemeral or seasonal flooding controlled by fluctuating groundwater. Similar but isolated, groundwater-influenced depressions are also scattered through the Park.

**Land Use** - The project site is located north of U.S. Route 29 and west of VA Route 622 in the northwestern portion of the park and includes portions of the historic estate Bachelor's Hall (Douglas Hall). Historical background on the historic property is provided in the 1996 Joseph report detailing the cultural landscape inventory of the northwest quadrant of Manassas National Battlefield Park and the 2005 Fanning and Earley draft report analyzing the cultural landscape of the Brawner Farm.

# Early History and Ownership

The Bachelor's Hall and estate arose out of the division and sale of Carter family lands in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries. Robert "King" Carter, land agent for Lord Fairfax's Northern Neck proprietary, had patented vast tracts of land for himself and his family during the early 18<sup>th</sup> century, including the three Bull Run tracts that encompass present-day Manassas National Battlefield Park. By the end of the century, much of these holdings were being subdivided and sold, with some of the land passing out of the Carter family's ownership.

George Tennille, a Revolutionary war veteran, acquired several parcels totaling over 629 acres before his death in 1840. Following the death of his wife in 1846, George A. Douglas, Tennille's grandson, acquired 326.5 acres from the estate, and the house became known as Bachelor's Hall around 1850. In 1854 Douglas sold a seven-acre swath to serve as the right-of-way for the proposed Independent Line of the Manassas Gap Railroad, located along the northern edge of the present project area. Except for the railroad alignment, the farm passed to Douglas' wife Augusta upon his death in 1856.

She rented the property to John Brawner the following year.

Brawner, his wife Jane, and their five children (only the youngest was still a minor at 19) were recorded as residing on the farm in the 1860 census. The family cultivated most of the rented acreage, producing wheat, rye, corn, oats, and hay. In addition, they maintained some livestock, including nine sheep, four horses, five milk cows, nine other cattle, and nine swine. The uncultivated portion of the property included a 45-acre woodlot southeast of the house. This woodlot later became known as Brawner's or Gibbon's Woods due to its association with the actions of John Gibbon's Union brigade during the engagement at the Brawner Farm, which opened the Second Battle of Manassas

#### Civil War

During the First Battle of Manassas, July 21, 1861, the Brawner and Dogan farms played no role in the engagement, as the heaviest action was focused to the east primarily along the Manassas-Sudley Road corridor. Local residents, however, gathered on Douglas Heights on the farm that the Brawners rented from Augusta Douglas. The open ridge offered extensive vistas, and the civilians on the high ground observed the distant fighting on Matthews Hill and Henry Hill.

Both farms, however, witnessed substantial fighting during the Second Battle of Manassas, August 28-30, 1862, including action on all three days of the battle. After conducting a sweeping flank march in rear of the Union Army of Virginia and raiding the Federal supply depot at Manassas Junction, Major General Thomas J. "Stonewall" Jackson led his Confederate forces northward from the junction and placed his troops on the high wooded ground north and northeast of the Brawner farmstead. There they could observe Union movements from a position of cover and also await the arrival of the remainder of the Confederate Army of Northern Virginia under General Robert E. Lee.

At midday on August 28, a portion of Jackson's command on the Brawner farm briefly engaged the Union division of Brigadier General John F. Reynolds marching east along the Warrenton Turnpike. After a short skirmish, however, Reynolds turned southward along Pageland Lane, just west of the Brawner farm, and skirted past Jackson's position. A far more violent clash erupted when another Federal division passed in front of Jackson's position late in the day. As Brigadier General Rufus King's division marched eastward on the turnpike toward Centreville around 5:30 p.m., Jackson ordered his men out from their hidden positions on Stony Ridge to confront the passing Federals.

With Confederate artillery near the Brawner house firing on the Union column, a lone Federal regiment, the 2<sup>nd</sup> Wisconsin, peeled off of the turnpike and headed through the cover of the Brawner woods to attempt to capture the guns. Emerging east of the house, the Wisconsin troops soon encountered the Stonewall Brigade marching to give battle. Other Union and Confederate units joined the fighting piecemeal until the opposing battle lines stretched for a half mile from the Brawner farmyard eastward onto the neighboring farm of Lucinda Dogan.

For nearly two hours, the fighting raged on the Brawner and Dogan farms, with darkness ending the combat. During the night, King's division slipped off the field and marched southward to Manassas Junction, leaving Jackson in control of the field.

During the next two days, the Brawner and Dogan farms served as the stage for significant military action. Jackson pulled back from his battle front of August 28 and took up defensive positions along the Unfinished Railroad, with his right anchored near the Brawner farm and his left near Sudley Church. There he withstood repeated Union attacks throughout August 29 and 30.

During August 29, Gen. Lee arrived with the remainder of his army under Major General James Longstreet and extended the Confederate positions south from the Brawner farm to the Manassas Gap Railroad. From his command post on Stuart's Hill, Lee communicated with Jackson north of the Brawner farm through the use of signal flags. While Jackson withstood repeated assaults, Lee awaited an opportunity to unleash Longstreet's troops on Major General John Pope's Army of Virginia.

During the afternoon of August 30, Pope launched an attack on Jackson's lines in the vicinity of the Deep Cut, where the excavated bed of the railroad ran across a hill on the Dogan farm. Marching over open ground on the farm, a Federal assault force under Major General Fitz John Porter crossed Schoolhouse Branch and pivoted toward the railroad grade. Although shaken by the assault, Jackson's infantry held its position. Meanwhile, Confederate artillery fire from the Brawner farm and from the Battery Heights area of the Dogan farm impacted in the fields that Porter's force had crossed on the attack. The damaging artillery fire helped prevent other Union troops from joining in the attack and also made retreat risky for those Federal forces pinned down along the embankments of the Unfinished Railroad. With hope of success vanishing, the Union forces fell back off the field.

Following Porter's failed attack, Lee and Longstreet saw their opportunity to

wreak havoc in the Union army. Around 4:00, Longstreet's Confederates – 28,000 strong – advanced from their positions south of Brawner farm and headed eastward to drive in the Union left. Caught off-guard, Pope's army was unable to stop Longstreet's advance until the Confederate attack had rolled onto the western slopes of Henry Hill. A last ditch effort to stave off disaster there and along the Sudley Road allowed Pope to pull his battered army back across Bull Run at dark.

# Post-Civil War History

The Brawner family remained on their farm during the war. Despite the damages to their rented farm, the Brawners returned after the Second Battle of Manassas and continued to farm the property for a time, though the historical record is unclear on how long they remained. After the war the Brawner family ended its tenancy of the Douglas farm. Augusta Douglas (now Lynn) died in 1876 and left the property to her son Pendleton Douglas, who continued to rent the farm before selling to William M. Davis in 1895. Davis enlarged the postwar house in the early 1900s (the wartime building having been dismantled at some unknown date), but Davis' heirs made few additional improvements to the property. By the late 1930s the eastern portions of the farm were no longer under cultivation. A 1937 aerial photograph depicts the farm, showing a belt of woods extending northward from the wartime Brawner woods and covering the previously open ground that lay between the Brawner and Dogan farmsteads. Today, this forested area has merged with the larger body of woods along the Unfinished Railroad on the slopes of Stony Ridge.

Today, the Brawner farm is a major interpretive site on the Second Manassas battlefield. Interpretive trails connect significant battle positions on the property.

# **B.** Living Components

#### Wildlife

A list of animal species known to use the habitat of the park can be found at the Nature and Science section of the Manassas web page, <a href="www.nps.gov/mana">www.nps.gov/mana</a>. Many common species of wildlife have been observed near this site. Species include various Songbirds, White-tailed Deer (*Odocoileus virginianus*), Eastern Cottontail (*Sylvilagus floridanus*) and Red Fox (*Vulpes vulpes*). No state or federally listed threatened or endangered species have been

identified in the study area. However Virginia Heritage has identified some rare plants and communities in the general vicinity of the project site. Current locations of the entrance road and parking lot avoid areas where these rare species are found. The park's Natural Resource Program Manager will consult with Virginia Natural Heritage prior to work beginning to insure protection of these species.

### Ecological Areas, Rare Communities and Plants

All of the project area is within the Manassas diabase upland ecological area. Four significant communities and 10 occurrences of rare plants associated with diabase were located in this general vicinity.

Much of this area was used for agriculture prior to the Park's establishment. Fields have been managed by the Park Service by annual hay mowing, which has favored the development of extensive and impressive perennial grasslands dominated in the summer by *Sorghastrum nutans* (Indian grass) and containing many other native grasses and herbs. Prevalent among these are *Carex bushii* (Bush's sedge), *Oenothera fruiticosa* (narrow-leaved sundrops), *Senecio anonymus* (Small's ragwort), *Liatris squarrosa* (scaly blazing-star), *Schizachyium scoparium* (little bluestem), *Lespedeza virginica* (slender bushclover), *Solidago juncea* (early goldenrod), *Pycnanthemum tenuifolium* (narrow-leaved mountain-mint), *Tridens flavus* (redtop), and *Aster pilosus* (white heath aster). Non-native species are common here too, particularly in the spring when the cool season grasses *Anthoxanthum odoratum* (sweet vernal grass), *Festuca pratensis* (meadow fescue), and *Dactylis glomerata* (orchard grass) are rampant.

Open fields in this area contain a large viable population of *Penstemon hirsutus* (hairy beardtongue). This is a northern species which reaches the southern limits of its distribution in northern Virginia. The 1997 estimated population for this species is 3500 to 4000 stems, occurring in numerous colonies found throughout the site. Other species associated with open habitats are *Buchnera americana* (blue-hearts) and *Stachys pilosa var. arenicola* (marsh hedgenettle).

Three populations of *Stachys pilosa var. arenicola* were located near the site. Like *Penstemon hirsutus*, this is a northern species at the southern edge of its range in the northern Virginia area. The taxonomic and distributional status of this taxon is poorly understood. MNBP contains the majority of known Virginia populations. *Stachys pilosa var. arenicola*, first discovered in 1993, is located on the Brawner Farm tract at the western end of MNBP. Three colonies of the rare mint were found here in 1997, totaling about 60 stems. The habitat for the northern two colonies is a seasonally damp swale in and near a pipeline right-of-way through an old field. Plants are found in open grassy vegetation, in a brushy fencerow along Route 705, and in the newly cleared power line right-of-way. The southern colony is found along the power line right-of-way in a seasonally wet swale created by a manmade earthen berm.

# General Vegetation

The Brawner Farm tract of MNBP is a mixture of woodlands and fields; however the entrance road, parking lot, and trail to the Brawner house occur entirely within fields that have been maintained via cutting by the parks maintenance staff. Tree lines intersect the project area in two locations; the eastern tree line contains a small intermittent stream. In addition, the entrance road crosses under a power line where the vegetation is managed by Virginia Power. Trees were planted on both sides of the power lines to serve as a visual buffer as part of the relocation of the lines in the late 1990s.

#### Wetlands

The Virginia Department of Conservation and Recreation, Division of Natural Heritage produced a Natural Heritage Technical Report 03-21 in December 2003 that classified and mapped the wetlands in this project area (Appendix D). Ruderal wet meadows were found to be common along the intermittent streams and headwater drainages of the area. One vernal pond was found just north of the project area, encompassed by a small area of woodland and associated with a larger area of wet meadow. Wetlands in the project area consist of an intermittent stream that the walking trail will cross, and wet meadow habitat that the entrance road was designed to avoid.

# Human Population Density

The park has an annual visitation of approximately 800,000 visitors who spend anywhere from 30 minutes to 6 hours in the park. The heaviest concentrations of visitors come to the park on weekends. There is a 42-mile trail system in the park that allows visitors easy access to nearly all portions of the Park. Primary access is by automobile, with secondary access from horse, motorcycle, and foot traffic. A one-mile interpretive loop trail provides pedestrian access to the Brawner Farm other sites associated with the fighting during the Second Battle of Manassas. Due to the limited public access to the Brawner Farm, this interpretive trail receives light use by visitors touring the Second Manassas battlefield.

### IV. ANALYSIS OF PROPOSED ACTION

#### A. Alternative 3: Preferred Alternative

Due to ground disturbing activities related to the rehabilitation of the Brawner Farm House, the National Park Service initiated an archeological investigation of the site in the fall of 2003. The archeological investigation encompasses historical research, archeological fieldwork, laboratory processing of artifacts, and artifact cataloging and analysis. Completion of the investigation will result in the production of a final report documenting the findings. The National Park Service will undertake formal consultation with the Virginia

State Historic Preservation Officer (SHPO) to address the potential effects that may arise from the project, in compliance with Section 106 of the National Historic Preservation Act of 1966.

The impact this project may have on visitors touring the area during the construction process would be short-term and minimal, as access to the site from the existing parking area on the shoulder of U.S. Route 29 would continue throughout the project. The interpretive loop trail located to the east of the house would also remain open during the project. Low noise distraction would occur from construction-related activities at the Brawner Farm House. The pedestrian trail would also continue to provide access to the vicinity of the Brawner Farm House, although portions of the grounds may be inaccessible for brief periods during construction work

Impacts to the natural environment would be minimal in the area of the proposed action. The entrance road has been designed to avoid the wet meadows (see Appendix D). However, road construction may indirectly impact some wet meadow habitat. Loomis and Heffernan state that these areas were mapped based on vegetation representative of current hydrological conditions. They also mention that wet meadow vegetation will respond more quickly to hydrological change (such as that resulting from soil placement or removal) than will areas dominated by woody vegetation. So construction of this road has the potential to affect drainage patterns and alter wetland boundaries beyond the immediate road location. However, we do feel that these impacts will be minimal.

#### V. PUBLIC PARTICIPATION

The Environmental Assessment for this project will be advertised for a 30-day public review. A press release will be issued to the local newspapers advertising the availability of copies of this Environmental Assessment, Rehabilitation of the Brawner Farm House, to local libraries and through the Internet at www.nps.gov/mana/administration/admin.htm.

# VI. LIST OF PREPARERS

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#### VIII. APPENDIXES

#### A. References

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National Park Service, Falls Church, VA.

1995 Phase I Cultural Resource Investigations of the Manassas National Battlefield Park Transmission Line Corridor Relocation Project, Prince William County, Virginia. Prepared by Ashley Neville, Joseph S. White III, and Eric Voigt. Gray & Pape, Inc., Richmond, VA. 1989 Development Concept Plan/Environmental Assessment: Brawner Farm Site. Denver Service Center, National Park Service, Denver, CO. 1989 Soil Survey of Prince William County, Virginia, USDOA, Soil Conservation Service. 1987 Manassas National Battlefield Park Forest Management Plan, North American Resource Management, Charlottesville, VA. 1985 Historical Report On the Troop Movements for the Second Battle of Manassas, August 28 Through August 30, 1862. Prepared by John Hennessy. Denver Service Center, Denver, CO. 1998 A Natural Heritage Inventory of Manassas National Battlefield Park. Natural Heritage Technical Report 98-7. Prepared by A. Belden, Jr., G.P. Fleming, and N.E. Van Alstine. Virginia Department of Conservation and Recreation, Division of Natural Heritage, Richmond, VA. 1983 Bedrock map and geotechnical properties of rocks of the Culpeper basin and vicinity, Virginia and Maryland. Scale: 1:125,000. Map 1-1313-C. By B. D. Leavy, A.J. Froelich, and E.C. Abram. U.S. Geological Survey, Reston, VA. 1980 Soil survey of Prince William County, Virginia. Edited by J. H. Elder. U.S.D.A. Soil Conservation service in cooperation with Virginia Polytechnic Institute and State University. U.S. Government Printing Office, Washington, DC. 1979 Triassic-Jurassic geology of the northern part of the Culpeper basin, Virginia and Maryland. By K. Y. Lee. U.S. Geological Survey Open-File Report 79-1557. Triassic stratigraphy in the northern part of the Culpeper basin, Virginia and 1977 Maryland. By K. Y. Lee. U.S. Geological Survey Bulletin 1422-C. 1938 Physiography of the eastern United States. By N. M. Fenneman. McGraw-Hill Book Company, New York, NY.

# B. Photographs

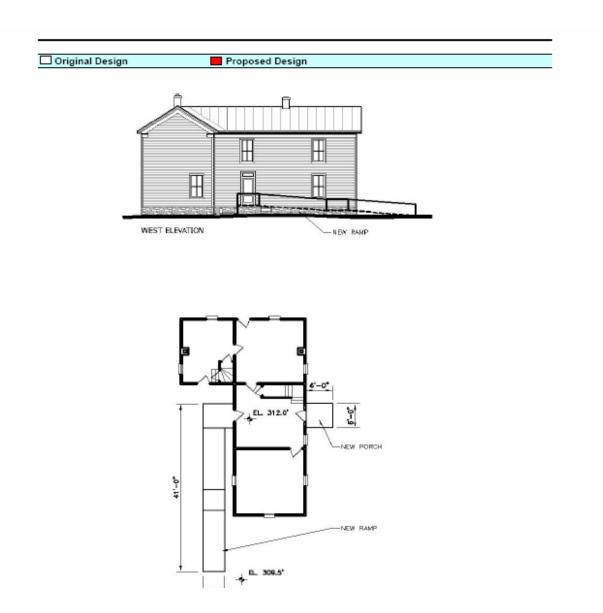


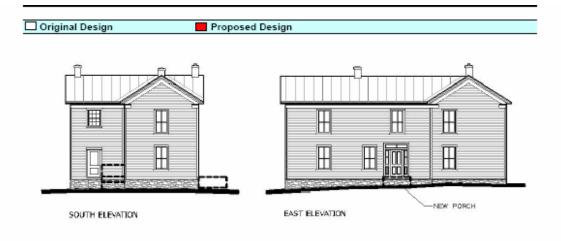
Brawner House, East and North Elevations, 2004

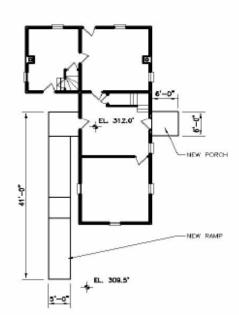


Brawner House, West and South Elevations, 2002

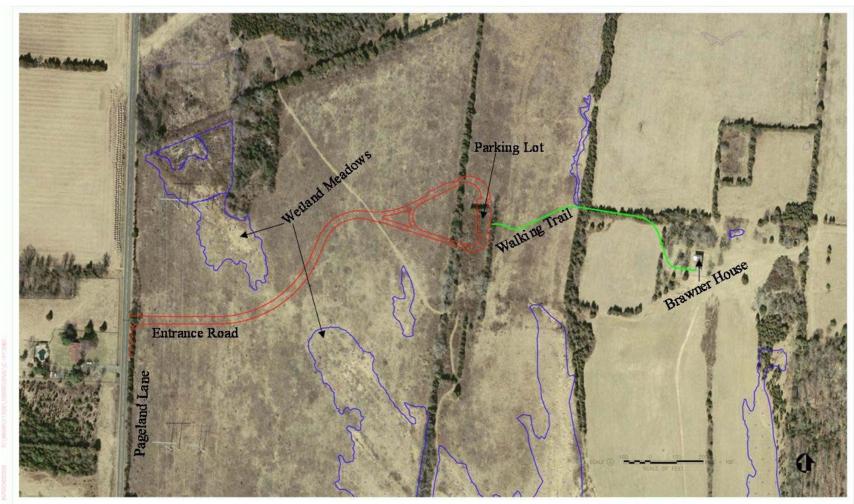
# C. Elevation Drawings and Floor Plans for Preferred Alternative







D. Map



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